

## **Historic, Archive Document**

**Do not assume content reflects current scientific knowledge, policies, or practices.**



## U. S. DEPARTMENT OF AGRICULTURE

Office of Information

★ DEC 23 1953

U. S. DEPARTMENT OF AGRICULTURE

PHOTO SERIES NO. 27

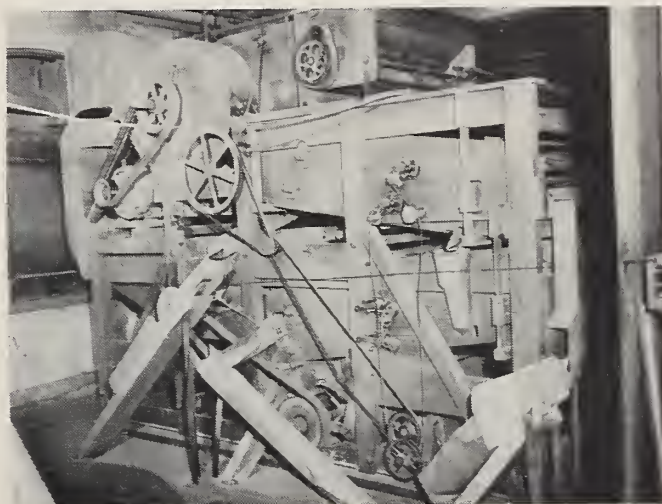
## ADMINISTRATION OF THE FEDERAL SEED ACT

OCTOBER 1958

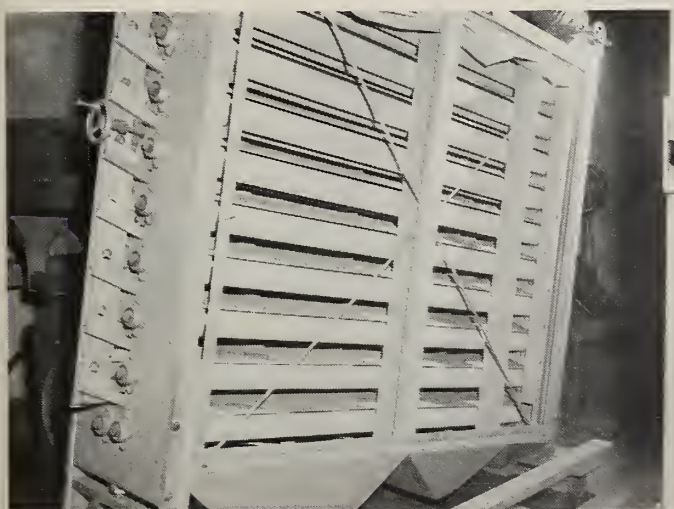
Seeds are the beginning of almost all of our cultivated crops -- the grains, grasses, and legumes. Because seeds are so important, all States have laws that govern labeling and the sale of seeds containing noxious weed seeds. Many seeds, notably corn, and almost all of the grasses and legumes as well as vegetable seeds move in interstate commerce. The labeling of these seeds is subject to the Federal Seed Act which is administered by USDA's Agricultural Marketing Service. Pictures were taken for AMS.



N-24644--Orchardgrass seed being unloaded at the cleaning plant of a wholesale seed firm. The seed is in bags just as it came from the threshing machine, and is generally referred to as seed "in the dirt."



N-24629--The seed must be cleaned--the pure orchardgrass separated from the weed seeds, chaff, stems, dirt and pebbles. Usually the first machine the seed is put through is this one that uses a combination of screens and wind to separate the pure seed from the inert matter.



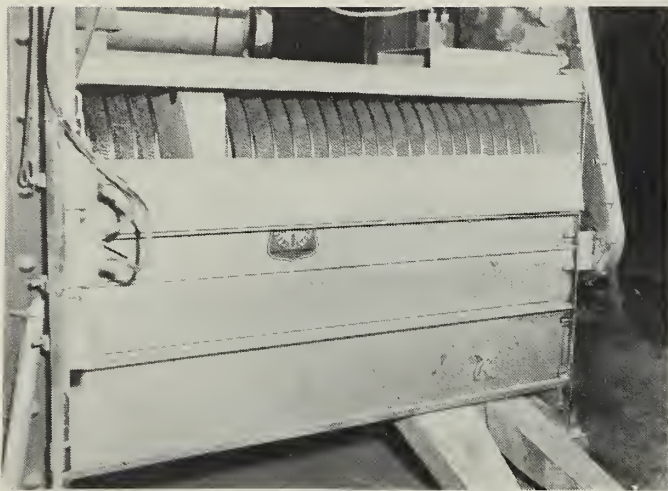
N-24632--A dodder mill is used to separate the seeds of this parasitic plant from the seeds of such legumes as alfalfa, white clover, alsike clover and red clover.



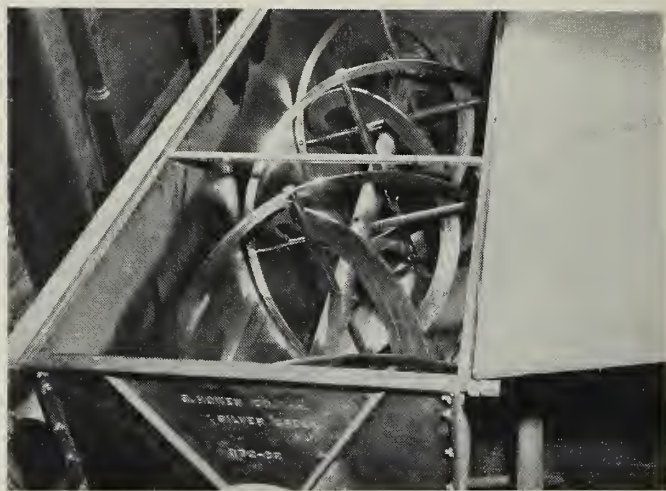
N-24638--A spiral separator removes round weed seeds from crop seeds which are not round. Mustard and vetch seeds are separated from grain seeds with this device.

*Magazines and newspapers may obtain glossy prints of any of these photographs from the Photography Division, Office of Information, U. S. Department of Agriculture, Washington 25, D. C. Others may purchase prints (8 x 10) at \$1.00 each from the same address.*





N-24636--A disc separator. The discs have indentations of different sizes and shapes. As the discs revolve, weed seeds lodge in the indentations and in this way are separated from the pure seed. For example, the seeds of sheep sorrel and dock are separated from orchardgrass.



N-24643--The Federal Seed Act requires that a lot of seed be uniform as to the quality factors which appear on the label. This is a blender which may be used to blend a lawn seed mixture to uniformity. The augur-type apparatus revolves, mixing the seed as it turns.



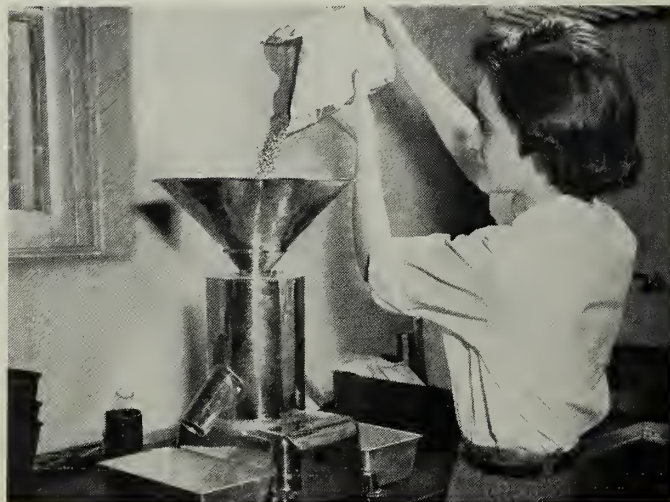
N-24624--Preparing tags to be attached to a shipment of seed. The Federal Seed Act requires these tags on interstate shipments of seed to show purity and germination and give the names and amounts of noxious weed seeds called for by the laws of the State into which the seed is shipped.



N-24635--Part of a large stock of seed that has been cleaned and is ready to be shipped into States. These are tightly woven burlap bags that hold about two bushels. Weights of seed vary greatly. A bag of orchardgrass weighs about 30 pounds; a bag of hairy vetch seed over 120 pounds.



N-24528--State Inspector taking sample of seed with a probe. The probe reaches the entire length of the sack. A representative sample is obtained and tested in the State Seed Laboratory to determine its purity, noxious-weed seed content, and germination.



N-24517--In the State seed laboratory the sample of seed is divided mechanically again and again until a 'working sample' is obtained.





N-24513--The seed analyst is holding a vacuum seed counter that is used in counting seeds for a germination test. The seeds have been placed on a moist blotter. Another moist blotter will be placed over them and then the blotters with the seeds between them will be placed in a germinator where the temperature is controlled and the humidity is high.



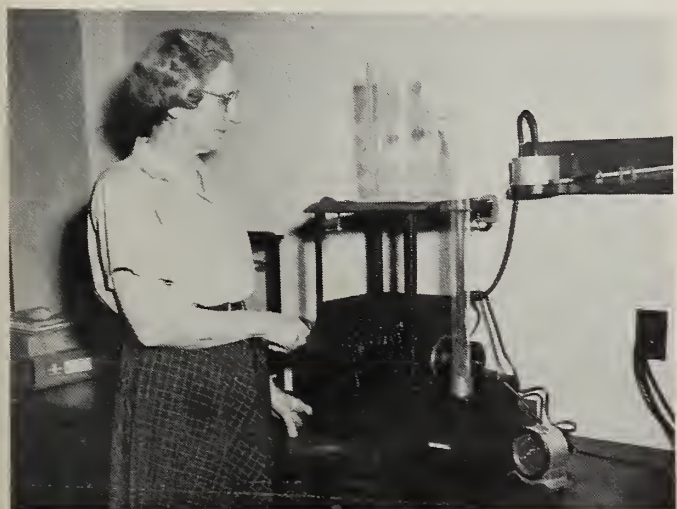
N-24614--A sample of 100 seeds of red clover that have been placed between moist blotters and put in a germinator from which almost all light is excluded.



N-24617--Preparing a soil test which may be used as a check on the germination test by other conventional laboratory methods. The soil test duplicates in part the conditions that seed will encounter when growing in the field such as having to push its way up through the soil. The same temperatures are used in this test as in the standard germination test.



N-24509--The results of a germination test. The seed with long, vigorous sprouts, in the upper part of the picture, would be expected to produce plants in the field under favorable conditions. The seeds in the lower left are dead. Those in the lower right have shown some life but would not be expected to produce plants in the field and are not included in the percentage of seeds that have germinated.

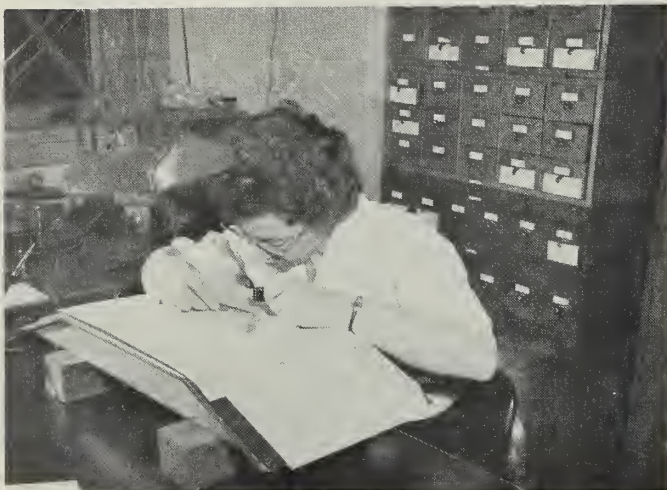


N-24608--This seed blower is one of the mechanical aids used to separate light inert material from the pure seed. Air is forced up through the seed in the glass tube. The light material is blown to the top of the tube and drops into a container. This type of blower is a precise instrument.



N-24609--The diaphanoscope is used as an aid in making purity separations. A strong beam of light is projected through the glumes (cover) of grass seed, enabling an analyst to see whether there is a "seed" within the glumes. Direct outside light is excluded by the dark hood.





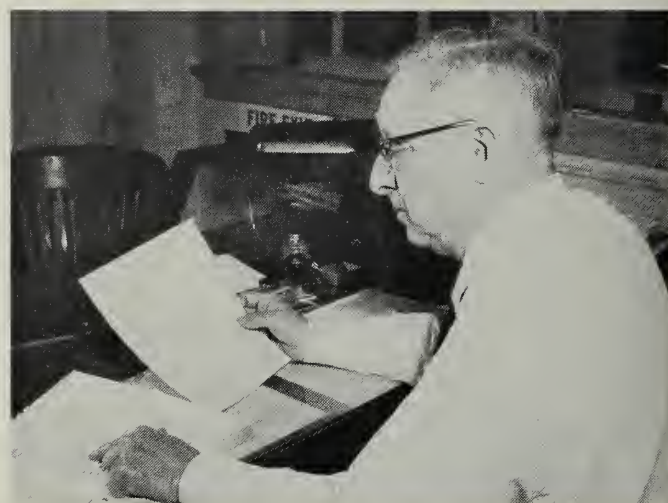
N-24604--A seed analyst is separating a "working sample" into its components of pure seed, weed seed, other crop seed, and inert matter. The analyst is expected to identify all seeds, both crop and weed, found in the sample.



N-24607-- Weighing the different parts into which a seed analyst has divided a seed sample. From these weights the percentage of each part--pure seed, weed seed, other crop seed and inert matter--will be calculated.

VARIETY OR TYPE	KIND
PURE SEED _____%	GERMINATION _____%
CROP SEED _____%	HARD SEED _____%
INERT MATTER _____%	
WEED SEED _____%	
ORIGIN _____	DATE OF TEST _____
NOXIOUS WILD SEEDS (NAME AND RATE OF OCCURRENCE IN ACCORDANCE WITH STATE LAW)	
(NAME AND ADDRESS OF SHIPPER OR NAME AND ADDRESS OF CONSIGNEE WITH CODE DESIGNATION OF SHIPPER)	

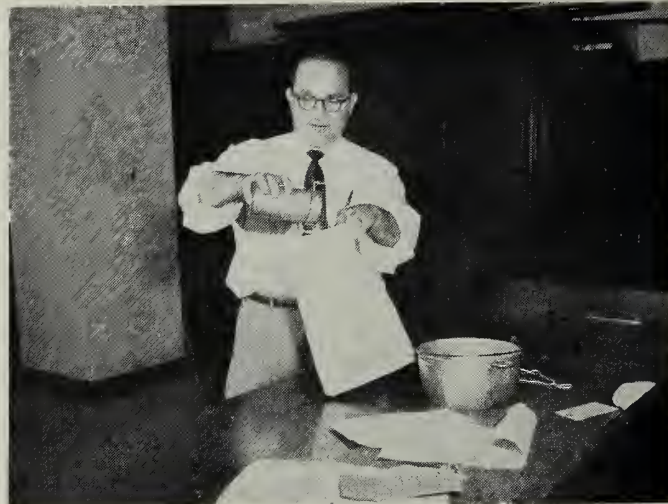
N-24596--An enlarged seed tag. This information, with the exception of the designation of variety of type, is required by the Federal Seed Act in labeling agricultural seeds shipped in interstate commerce for seeding purposes. Vegetable seeds are also subject to the Federal Seed Act, although labeling requirements are different.



N-24595--Results of tests in the State Seed laboratories and confirmed in the Federal seed laboratory show that seed in interstate commerce has been falsely or incompletely labeled in violation of the Federal Seed Act. An enforcement officer of USDA's Grain Division examines evidence on alleged violation of the Federal Seed Act.



N-24603--This Federal Seed Laboratory at Beltsville, Md., makes tests on seeds subject to the Federal Seed Act. (Other laboratories are located at Sacramento, Calif., Montgomery, Ala., Kansas City, Mo., Minneapolis, Minn., and New Brunswick, N. J.)



N-24619--Representative of the Customs Service preparing sample of seed to be sent to the Federal Seed Laboratory to determine whether the seed meets the purity and germination standards of the Federal Seed Act for seed imported into the United States.